

## **REMARKS/ARGUMENTS**

Applicant has received the Office Action dated September 27, 2007 (hereinafter "Office Action"), in which the Examiner: 1) objected to the drawings; 2) rejected claims 1-3, 5-11, 13-22, 24-29, 31-39, 41-46 and 48-64 as allegedly anticipated under 35 U.S.C. 102(b) by "VMware" (described by the Examiner as a combination of two NPL references, "VMWare Technical White Paper" (hereinafter "White Paper") and "VMWare Application Scenarios" (hereinafter "App Scenarios")); and 3) rejected claims 4, 12, 23, 30, 40 and 47 as allegedly obvious under 35 U.S.C. 103(a) over VMware, with the Examiner taking Official Notice of the use of intrusion detection devices. With this Response, Applicant has amended claims 1, 20, 37 and 54, and added new claims 65-74. Based upon the arguments and amendments contained herein, Applicant believes this case is in condition for allowance.

### **I. DRAWING OBJECTIONS**

The Examiner objected to the drawings, stating that figures 1-6 should be designated by a "Prior Art" legend because "only that which is old is illustrated." Office Action, p. 3 ¶ 8. Applicant respectfully traverses the Examiner's characterization of the figures as prior art. Applicant respectfully submits that the manner in which the virtualized systems and virtualized components are combined with real systems and real components, as well as the particular configuration and interconnection of such systems and components, as shown in figures 1-6, are not taught or suggested by any of the cited prior art. For example, figure 1 illustrates a system that utilizes real computers 62 which are described in the specification and explicitly shown in for example figure 2 as having virtual server machines 83 running thereon in accordance with the independent claims of the present application. Similarly, and again by way of example, figures 2, 4, 5 and 6 each shows a combination of virtualized servers, with different virtual servers assigned to different customers of the operator of the real computers that are used to host the virtual servers. The implementation of multiple virtual servers that are each assigned to different customers that access

the servers over a real network is not taught or suggested by the cited art. The cited references only teach a single user accessing one or more virtualized machines via a single user interface provided by the real, host computer.

Figures 4, 5 and 6, for example, illustrate several sets of virtual servers, (each set assigned to one of a plurality of customers) that are made accessible over a real network. Such a configuration of virtual machines for use over a real network is also not taught or suggested by the cited art. The cited references only describe implementing virtual machines that are either individually accessible at the real computer upon which they execute, or virtual machines interconnected by a virtual network, all of which exist and interact in a self-contained, simulated environment. The cited references fail to teach or suggest implementing groups of servers on a single real machine that are all concurrently made accessible across one or more real networks.

For at least these reasons, Applicant respectfully submits that the figures do not illustrate only what is old, and respectfully requests withdrawal of the objection to the drawings.

## **II. THE ANTICIPATION REJECTIONS**

The Examiner rejected independent claim 1 as allegedly anticipated under 35 U.S.C. 102(b) by VMware, which the Examiner described as a combination of the White Paper (referred to by the Examiner as WP) and the App Scenarios (referred to by the Examiner as AppS). See Office Action, p. 4, ¶ 10. The Examiner justified the use of multiple references in the anticipation rejection by stating that “in some circumstances, it is permissible to use multiple references in a 35 U.S.C. 102 rejection,” and cited MPEP § 2131.01. Office Action, p. 2, ¶ 4. While Applicant acknowledges that such a use of multiple references in an anticipation rejection is allowable under some circumstances, Applicant respectfully submits that the Examiner’s use of the references in the rejection does not fall within such allowable circumstances and is improper. Specifically, multiple references may be used in an anticipation rejection to: “(A) Prove the primary reference contains an “enabled disclosure;” (B) Explain the meaning of a

term used in the primary reference; or (C) Show that a characteristic not disclosed in the reference is inherent.” MPEP § 2131.01.

In contrast to the requirements of MPEP § 2131.01, the Examiner’s rejection reads as follows:

Regarding claim 1, VMware teaches apparatus providing one or more computer services for a plurality of customers, the apparatus comprising a real computer on which is set up at the request of each of said customers at least one virtual machine for each of said customers (WP, pp. 5-7), said at least one virtual machine for each of said customers having a specification specified by and configurable by the respective customer and having a separate operating system running thereon (AppS, pp. 2-4).

Office Action, p.4, ¶ 10. As can be seen from the cited text, the Examiner applied each reference to separately support different claim limitations of independent claim 1, not to prove an enabled disclosure, not to explain the meaning of a term used in a primary reference, and not to show inherency of an undisclosed characteristic. For at least these reasons, Applicant respectfully submits that the rejection of independent claim 1 under 35 U.S.C. 102(b) was improper, and respectfully request withdrawal of the rejection.

Even if, *arguendo*, the Examiner’s rejection of independent claim 1 was treated as proper under 35 U.S.C. 102(b), Applicant respectfully submits that the cited art fails to teach or suggest all of the limitations of the claim. In responding to Applicant’s prior arguments, the Examiner stated that “the claims are only directed to what virtualization was designed to address, i.e., running multiple operating systems on a single computer system, as VMware did,” and that “[w]hat the customer allegedly is, is irrelevant, since there are multiple parties to a computing environment that provides with multiple, separately, and distinctly configured operating systems residing on a computer system.” Office Action, p. 2, ¶ 5 (emphasis in original text). Applicant respectfully traverses the Examiner’s characterization of the claim, noting that claim 1 is not directed to only what virtualization was designed to address, but in fact defines a novel use of the virtualization technology not contemplated at the time of the invention. This use

is defined, at least in part, by the interaction of the operator and the customers of the operator. The interaction so defined in turn defines, at least in part, the structure of the virtualized machines and the partitioning and distribution of resources of the real computer.

The interaction of the customers and operator thus serves to define a valid functional limitation of the claim. "There is nothing inherently wrong with defining some part of an invention in functional terms. Functional language does not, in and of itself, render a claim improper." MPEP § 2173.05(g) (citing *In re Swinehart*, 439 F.2d 210, 169 USPQ 226 (CCPA 1971)). Further,

A functional limitation must be evaluated and considered, just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used. A functional limitation is often used in association with an element, ingredient, or step of a process to define a particular capability or purpose that is served by the recited element, ingredient or step.

MPEP § 2173.05(g). Thus, because the interaction between the operator and the customers defines a functional limitation that describes how the virtual and real machines are configured and operated, Applicant respectfully submits that the Examiner improperly failed to consider all of the claim limitations of claim 1. For at least this reason, Applicant respectfully requests withdrawal of the rejection of independent claim 1.

While Applicant believes that claim 1, as previously submitted, clearly defines the distinct, separate existence of the operator and customers described in the claim, as well as the interaction between the two claim elements, Applicant has amended independent claim 1, without conceding the merits of any of the Examiner's arguments, to clarify the definition and interaction of these elements, and to expedite prosecution of the subject application. As amended, independent claim 1 requires "a real computer, operated by a computer service provider... on which is set up at the request of each of a plurality of customers of the computer service provider at least one virtual machine for each of said customers." Applicant respectfully submits that the operator and customers are clearly defined

as distinct entities, and that the configuration of both the real computer and the virtual machines running on the real computer are both defined by the specification provided to the operator by the customers. As already submitted and explained above, the interaction of the customers and the operator define one or more structural limitations of the claimed computer system, and these limitations are not taught or even suggested by the any of the cited art, either alone or together. For at least these reasons, Applicant respectfully submits that amended independent claim 1, as well as those claims that depend upon it, are all in condition for allowance.

Applicant has also amended independent claim 1, which now requires “a real computer... coupled to a real network” and “wherein said at least one virtual machine for each of said customers is configured to provide one or more computer services over the real network for each respective customer” (emphasis added). These amendments serve to clarify the operation of the virtual machines as servers that deliver services over a (real) network to or for the respective customers and that the virtual machines are configurable by the respective customers. Applicant respectfully submits that these limitations are not taught or even suggested by any of the cited art, either alone or together. Thus, for at least these reasons, Applicant respectfully submits that amended independent claim 1, as well as those claims that depend upon it, are all in condition for allowance.

Regarding independent claims 20, 37 and 54, Applicant respectfully notes that these claims have been amended to include limitations similar to those of amended independent claim 1. Thus, for at least all of the reasons presented above with regard to independent claim 1, Applicant respectfully requests withdrawal of the rejections of independent claims 20, 37 and 54, and respectfully submits that each of these amended independent claims, as well as those claims that respectively depend upon them, are all in condition for allowance.

### **III. THE OBVIOUSNESS REJECTIONS**

Regarding the rejections of dependent claims 4, 12, 23, 30, 40 and 47 as allegedly obvious over VMware (with the Examiner taking Official Notice of the

use of intrusion detection devices), Applicant respectfully notes that because these claims include all of the limitations of the amended independent claims upon which they respectively depend, and because, for at least the reasons presented above, none of the art cited, either alone or together, teaches or even suggests all of the limitations of any of the amended independent claims, dependent claims 4, 12, 23, 30, 40 and 47 are not rendered obvious over the cited art. Applicant thus respectfully requests withdrawal of the rejections of these claims under 35 U.S.C. 103(a).

#### **IV. NEW CLAIMS**

Applicant has added new claims 65-74. The subject matter of claims 65 to 67 and 69 to 74 are at least supported by paragraphs [0001] and [0078-0079] of the specification as originally filed. The subject matter of claim 68 is supported at least by paragraphs [0099] and [0161]. No new matter has been introduced by the addition of these claims.

#### **V. CONCLUSION**

Applicant respectfully submits that for at least the reasons presented above, all claims are in condition for allowance. In the course of the foregoing discussions, Applicant may have at times referred to claim limitations in shorthand fashion, or may have focused on a particular claim element. This discussion should not be interpreted to mean that the other limitations can be ignored or dismissed. The claims must be viewed as a whole, and each limitation of the claims must be considered when determining the patentability of the claims. Moreover, it should be understood that there may be other distinctions between the claims and the cited art which have yet to be raised, but which may be raised in the future.

Applicant respectfully requests reconsideration and that a timely Notice of Allowance be issued in this case. It is believed that no extensions of time or fees are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are

**Appl. No. 09/898,286**  
**Amdt. dated January 25, 2008**  
**Reply to Office Action of September 27, 2007**

hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required (including fees for net addition of claims) are hereby authorized to be charged to Conley Rose, P.C.'s Deposit Account No. 03-2769/1821-01100.

Respectfully submitted,

/Roberto de Leon/  
Roberto de Leon  
PTO Reg. No. 58,967  
CONLEY ROSE, P.C.  
(713) 238-8000 (Phone)  
(713) 238-8008 (Fax)  
ATTORNEY FOR APPLICANT